

Amendments to the Claims:

No changes to the claims.

Listing of Claims:

Claim 1 (Previously presented): An optimized system for the regulation and discontinuous measurement of the oxygen content or the content of any other gas in platforms for composting or processing waste, especially in the form of swaths, the system comprising:

at least one remote bay having at least one gas measurement probe and, in particular, at least one oxygen or CO₂ measurement probe;

a gas intake pump;

electric valves operated by a program controller; and

a pipe connecting each of the electric valves to a gas sampling device, the electric valves coupled to the pump allowing the air and the gases contained in this air at each sampling device to be drawn in successively and sent to the measurement probe;

wherein the sampling device is a rod with two opposite ends able to be driven into the pile(s) of waste or compost; each one of the sampling rods corresponding to one single pipe and carrying an air intake strainer at one end, the pipe being connected at the other end of the rod and by the fact that the oxygen measurement probe must be able to supply within a very short response time the measurement of the oxygen content of several swaths and that consequently this probe is a heated zirconium oxide sensor type with a response time less than ten seconds.

Claim 2 (Previously presented): The system as in claim 1, characterized by the fact that the electric valves are separate from the program controller or are integrated directly into the program controller.

Claim 3 (Previously presented): The system as in one of the claims in 1 or 2, characterized by the fact that the attachment of the rod to the pipe uses a packing gland facilitating the fastening or insertion of the pipe.

Claim 4 (Previously presented): The system as in claim 3, characterized by the fact that a single gas measurement probe, in particular oxygen or CO₂, can be used to measure, respectively, the oxygen or CO₂ content of several swaths by means of samples obtained from the various gas sampling rods.

Claim 5 (Previously presented): The system as in claim 4, characterized by the fact that the program controller further comprising at least one temperature probe attachable to at least one input/output port enabling it to receive PT 100 or PT 1000-type signals for temperature measurement.

Claim 6 (Previously presented): The system as in claim 5, characterized by the fact that the rod for sampling air in the waste, and used for measuring the concentration of oxygen, CO₂, or any other gas, does not contain a sensor or a transmitter built into the body of the rod, but only the intake strainer and its respective pipe.

Claim 7 (Previously presented): The system as in claim 6, characterized by the fact that the gas intake pump being equipped with a device for regulating the flow of air to the probe(s), of the rotameter type.

Claim 8 (Previously presented): The system as in claim 1, characterized by the fact that the air-sampling rod contains, at one of its ends, the intake strainer and, at the other end, a packing gland enabling insertion of the pipe for sampling the air in the compost or waste.

Claim 9 (Previously presented): A gas measurement system for sampling and measuring gas content in piles or platforms of composting or processing waste, especially in the form of swaths, the gas measurement system comprising:

- at least one remote bay having at least one gas measurement probe, the gas measurement probe being a heated zirconium oxide sensor type, the gas measurement probe being in communication with a program controller;
- a gas intake pump;
- at least one electric valve operated by the program controller; and
- at least one pipe connected the electric valve to a rod, the electric valve being coupled to the pump allowing the air and the gases contained in the air at the rod to be drawn in successively and sent to the gas measurement probe;

wherein the rod having a first end able to be driven into the pile of waste or compost, and a second end opposite of the first end and attachable to a free end of the pipe by means of a packing gland, the first end of the rod having a tapered air intake strainer;

wherein the program controller having at least one temperature probe and at least one input/output port enabling the program controller to receive PT 100 or PT 1000-type signals for temperature measurement or other signals for measuring other gases present.

Claim 10 (Previously presented): The gas measurement system as in claim 9 further comprising a main bay in communication with the program controller of the remote bay via a bus.

Claim 11 (Previously presented): The gas measurement system as in claim 9, wherein the gas intake pump being equipped with a device for regulating the flow of air to the gas measurement probe, the gas measurement probe being a rotameter type.